



MK:427 Noisesensor

Data Sheet

The MK:427 Noisesensor is an accurate, reliable and weather proofed self-contained outdoor environmental noise monitor that connects directly to process measurement and control systems.



Features and Benefits

- **Reliable:** Robust, weatherproof, reliable in harsh outdoor environments.
- **Ease of use:** Eliminates the need for third party software. Straightforward integration with 4-20mA current loop systems.
- **Accurate:** Meets the requirements of IEC 61672-1:2002.

MK:427 Noisesensor

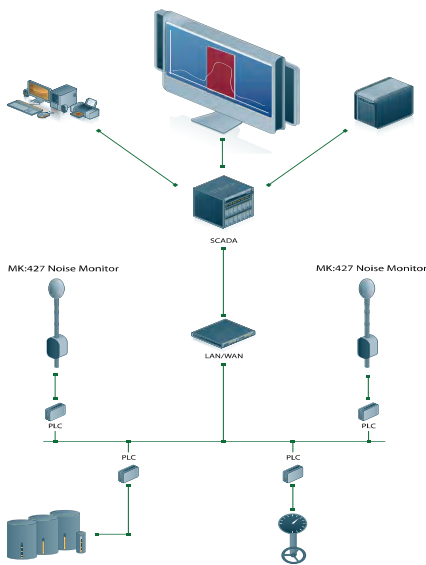
The complete solution for monitoring noise

Integration with Existing Process Monitoring and Control Systems

Many industrial plants have a variety of process sensors strategically placed around their site so that safety, environmental impact and efficiency can be monitored and managed, in real time, from one or more control rooms.

The Cirrus Environmental Noisesensor can be connected with unparalleled ease to such a system sending out continuous live data.

Schematic of Typical Control System



Applications

The Noisesensor is ideal for permanent or semi-permanent environmental noise monitoring applications such as power stations, manufacturing sites, petrochemical sites, construction sites, urban noise monitoring etc.

It is also ideal for companies wishing to integrate noise monitoring into their existing environmental logging products.

Live Noise Data to SCADA or DCS Systems

Unlike a conventional Sound Level Meter, the Noisesensor simply converts the noise level in decibels into an industry standard 4-20mA output, which can in turn be fed directly into a SCADA-type control system. The live noise levels can then be displayed and stored using your own system software, eliminating the problem of installing third party software where the complexity of extra software systems or security could be an issue.

Permanent and Reliable Outdoor Performance

The pure-analogue electronics are highly reliable and operate without any user intervention. No specialist acoustic knowledge is required – simply power-up the Noisesensor and the measured noise level is continuously fed to the output.

The outdoor microphone assembly has proven reliability for long term permanent use even in the harshest of outdoor environments where upgrade to the WS:73 extreme condition windshield is recommended.

Automatic Self Calibrating System

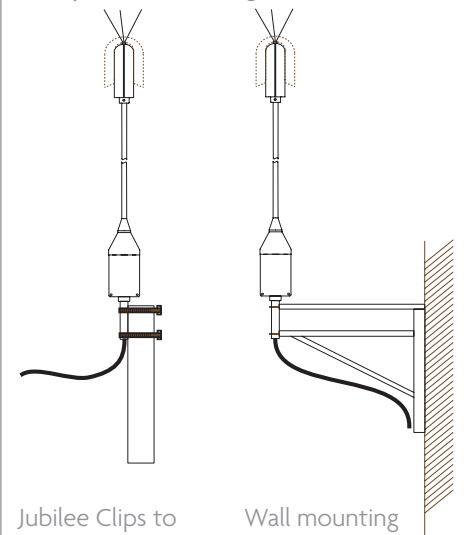
The electrostatic calibration system provides automated remote calibration of the system using a simple +5V trigger. This allows the performance of the system to be routinely verified which ensures compliance with international standards and is both time saving and especially useful where the unit is installed in a difficult to access location.

Ease of Installation

Installation is straightforward using either the standard mounting equipment supplied which consists of two 'U-bolt' kits and three 'Jubilee clips'.

We also offer an upgrade option, the 'CM:427 Wall Mounting Kit' for those wishing to fix the unit to a building face or wall.

Examples of mountings



Jubilee Clips to secure MK:427 to an existing post or mast

Wall mounting using the optional CM:427 Kit

MK:427 Noisesensor

Specification and Options



A number of MK:427 units have been supplied to a large industrial site where there was a need to feed live noise information into an existing system. The robust design and simple interface made the MK:427 ideal for this application and provides the operator with a reliable and simple way to monitor and display live noise levels along with the other data vital for the operation of the site.

Effective Noise Monitoring Solution

Given the ever increasing need to accurately monitor and control the environmental noise impact generated by industrial processes and sites, the Class 1 MK:427 Noisesensor affords companies an effective means of managing and controlling noise levels.

Specification	
Output Type	'A' weighting SPL output in the form of a 4-20mA loop
Frequency Weighting	dB(A) to IEC 61672-1:2002
Time Weighting	Factory set to Fast ('F') IEC 61672-1:2002
Automatic Calibration	Electrostatic Actuator System with DC voltage control
Measurement Range	30 – 100dB(A) (other options available)
Current Loop Output	I _{out} = 0.1mA/dB
Dimensions	1m length
Weight	4.5 Kg
Mounting	240mm x 30mm diameter pole Mounting Kit provided (2 U-brackets, 4 nuts, 3 Jubilee Clips)
External Power	+12V DC in
Ouput Cable	10m as standard. Other cable lengths are available
Options	
Factory Option	Time Weighting set to Slow ('S') IEC 61672-1:2002
Upgrade Option	CM:427 Wall mounting kit
Upgrade Option	WS:73 Extreme condition windshield

CIRRUS RESEARCH PLC
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

T: +44 1723 891655
E: sales@cirrusresearch.com
W: www.cirrusresearch.co.uk

CRplc MK:427/09/16/R2EN